



VOTATOR® II SCRAPED SURFACE HEAT EXCHANGER

Reduce Pressure Drop. Optimize Performance.

As processing demands increase, systems often require additional heat exchangers in series to achieve higher throughput. While this adds capacity, it also increases system pressure—placing strain on pumps, piping and upstream/downstream equipment. The Votator® II Scraped Surface Heat Exchanger pressure loss reduction configuration, featuring a 3" shaft and 4" product port connections, is designed to reduce pressure drop across both the heat exchanger and connected piping. The result is improved system stability, better pump performance and more efficient operation in demanding applications.

Why Reduce Pressure Drop?

Stabilize System Pressure

As capacity increases, additional surface area is often required—leading to more heat exchangers in series and higher system pressure. This can limit equipment selection and impact overall system performance. Reducing pressure loss helps maintain stable operating conditions and supports system expansion without overloading critical components.

Optimize Pump Performance

A positive displacement (PD) pump—typically a WCB Universal 1 is used to feed the Votator II. Its ease of disassembly makes it ideal for clean-out-of-place (COP) procedures, commonly required in U.S. meat processing with daily USDA inspection. With pressure ratings of 150–200 psi, managing system pressure is critical. Reducing pressure drop helps maintain operation within limits, improving efficiency and minimizing mechanical strain.

Reduce Line Pressure and Product Shear

The 4" product port connections encourage the use of larger-diameter interconnecting piping upstream and downstream of the Votator II. Larger piping reduces pressure drop across the system and lowers fluid velocity—helping minimize shear and support product integrity, particularly in high-viscosity applications.



DESIGNED TO BE CUSTOMIZED

How It Works

3" Shaft Design

The reduced shaft diameter increases the annular flow area inside the heat exchanger. This improved flow path helps reduce pressure drop across the heat transfer zone while maintaining effective heat exchange.

4" Product Port Connections

Larger port connections support increased piping diameter throughout the system. Because pressure drop is inversely proportional to pipe diameter, this helps reduce overall system pressure losses and improves flow efficiency.

Together these features reduce pressure drop across the entire system—from inlet to outlet.

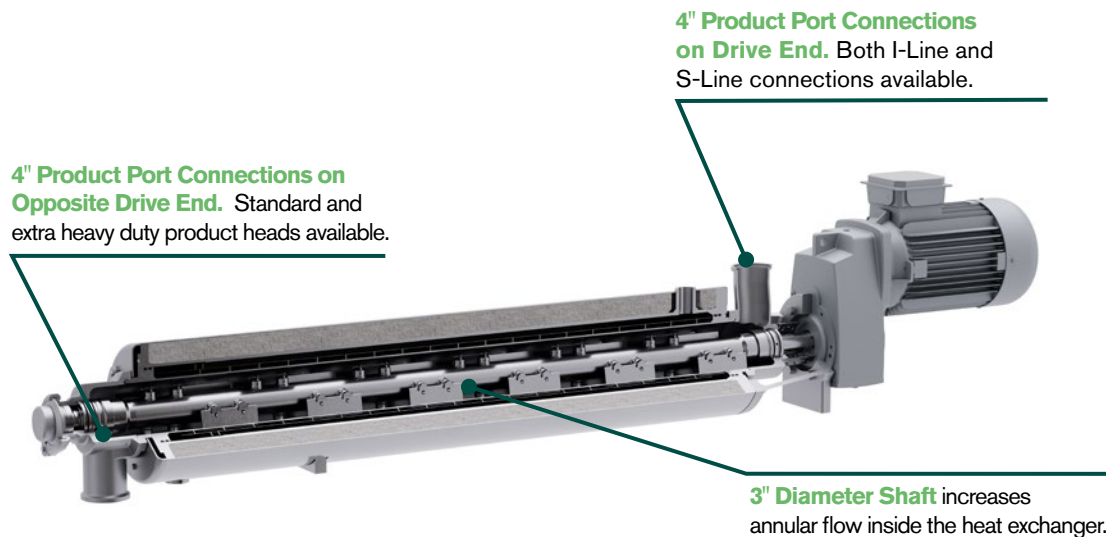
Compatibility with Existing Installations

Retrofits

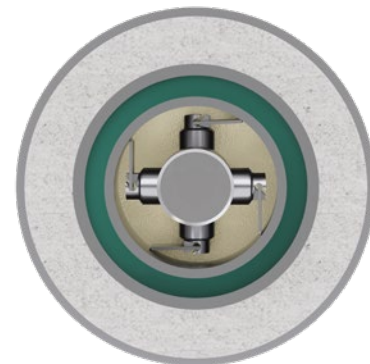
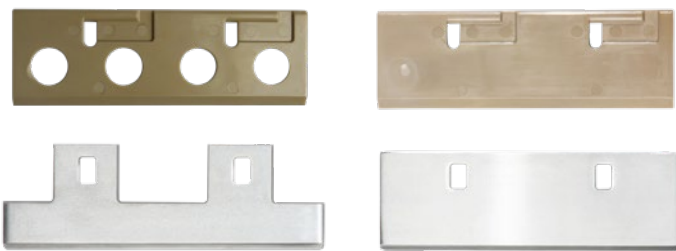
Designed to integrate with existing Votator II installations, with unchanged centerline dimensions and interchangeable shafts—enabling performance improvements without full system replacement.

Applications

Ideal for pressure-limited systems, including high-viscosity applications, multi-unit Votator II installations, and COP environments with lower-rated upstream or downstream equipment. Typical applications include meat slurries, pet food processing and industrial grease but not limited to.



Retrofittable with current blades and seals



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